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ENVIRONMENTAL ASSESSMENT FLOOD DAMAGE REDUCTION STUDY

DESIGN CHANGE TO EXPAND LEVEE RIVERWARD AT TWO LOCATIONS

SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT ADAMS COUNTY, ILLINOIS

APRIL 1988



US Army Corps
of Engineers

Rock Island District

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ELECTE
DEC 27 1988
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REPLY TO
ATTENTION OF

Planning Division

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING—P.O. BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

April 27, 1988

SEE DOCUMENT DISTRIBUTION LIST

Enclosed is an Environmental Assessment, a Finding of No Significant Impact (FONSI), and a preliminary Section 404(b)(1) Evaluation, which addresses two proposed design changes to the South Quincy Drainage and Levee District, Illinois, Local Flood Protection Project.

The documents are being circulated for a 30-day review period. No administrative action will be taken during this time. If comments received during the review period do not change the decision that no significant impacts will result from this action, the FONSI and Section 404(b)(1) Evaluation will be signed and held on file at the Rock Island District office. Comments should be made to the following address:

District Engineer
U.S. Army Engineer District, Rock Island
ATTN: Planning Division
Clock Tower Building - P.O. Box 2004
Rock Island, Illinois 61204-2004

Sincerely,

Neil A. Smart
Colonel, U.S. Army
District Engineer

Enclosures



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ATTENTION OF

CENCR-PD-E

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
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FINDING OF NO SIGNIFICANT IMPACT (FONSI)



EA-i

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1	Study Area (Showing Two Locations of Riverward Expansion of Levee)

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ATTACHMENT:
Clean Water Act, Section 404(b)(1) Evaluation

DISTRIBUTION LIST

ENVIRONMENTAL ASSESSMENT

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DESIGN CHANGE TO EXPAND
LEVEE RIVERWARD AT TWO LOCATIONS

SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT
ADAMS COUNTY, ILLINOIS

I. PURPOSE AND NEED FOR ACTION.

The U.S. Army Corps of Engineers has proposed raising an existing levee located south of Quincy, Illinois, between Mississippi River miles (RM) 318.5 to 325.5. The levee will be raised to provide additional protection from the 500-year frequency flood event for high quality agricultural lands and existing industrial and commercial activities.

A Final Environmental Impact Statement (FEIS) addressing the project was filed with the U.S. Environmental Protection Agency on July 8, 1983.

Continued planning and engineering investigations revealed the need to change hydraulic borrow sites and brought another impervious borrow site and one disposal site into consideration. These design changes were addressed in an Environmental Assessment, and a Finding of No Significant Impact was signed on March 30, 1987.

As planning and engineering investigations continued, requests were received through the project sponsor to consider expanding the main stem levee base riverward at two locations, (shown on plate 1), instead of landward as originally planned, to avoid discharging material into two permanent bodies of water located just landward of the levee. This Environmental Assessment addresses these additional design changes.

II. PROJECT DESCRIPTION.

The levee being considered for modification is an agricultural-industrial levee which affords protection from the 50-year frequency flood event on the Mississippi River. The levee is about 8.8 miles long and begins in the vicinity of Curtis Creek and Highway 57 on the north, runs along the south bank of Curtis Creek along the east bank of the Mississippi River, along the north bank of Mill Creek, and ends in the area of Mill Creek and Highway 57 (plate 1).

The levee modification will require approximately 172,000 cubic yards of impervious borrow and 910,000 cubic yards of pervious borrow. The sources of pervious borrow are sand dredged from nearby areas of the Mississippi River. Impervious borrow would be obtained from an area along Mill Creek and a bluff

site east of Highway 57. The project disposal site lies just west of Highway 57 in the southeast corner of the project area. A concurrent project at the north end of the South Quincy project area is the rehabilitation of Lock and Dam 21 which has a designated disposal site in the vicinity of the Quincy sewage treatment facility. The South Quincy project will take advantage of the opportunity and use this site for disposal of material from the northern areas of the project.

The existing levee encloses about 5,800 acres of bottomland. About 3,800 acres of this is cropland; 165 is commercial-industrial-residential; and 1,835 is devoted to surface waters, forested areas, and other uses.

III. ALTERNATIVES.

A summary of environmental quality effects for each alternative can be found in table EA-1.

A. Expand Existing Levee Landward at Two Locations. This is the original plan. Under this alternative, the proposed design changes would not be made. Expansion of the levee base would be toward the landward side with consequent discharge of construction materials into two forested sloughs. The two forested sloughs are considered to have a higher natural resource quality than corresponding areas riverward of the levee. The "No Federal Action" plan would therefore result in greater impacts to natural resources.

B. Expand Existing Levee Riverward at Two Locations.

1. Expand the existing levee riverward instead of landward from Station 336+00± to Station 385+00± to avoid impacting a landward forested slough (plate 1).

2. Expand the existing levee riverward instead of landward from Station 174+00± to Station 190+00± to avoid impacting a landward forested slough (plate 1).

Riverward expansion of the levee base at the two designated sites instead of landward expansion into a forested slough will result in less impact to natural resources. The effect will be to redirect project impacts to an area of lesser natural resource quality.

IV. AFFECTED ENVIRONMENT.

RIVERWARD AREAS ADJACENT TO THE LEVEE: Terrestrial areas on the riverside of the levee are wooded. Typical tree species are a mixture of willows (Salix sp.), cottonwoods (Populus deltoides), and silver maples (Acer saccharinum). Silver maples usually dominate the association, with cottonwoods the second

TABLE EA-1

EQ Effects

Alternative	Significant Resources	EQ Attributes			Significance			Effects on EQ Attributes	Notes
		Ecological	Cultural	Aesthetic	Institutional Recognition	Public Recognition	Technical		
Expand existing levee landward at two locations.	Two forested sloughs on landward side of levee.	Forested sloughs are considered valuable wetland slough habitat.	Same as below.	Forested sloughs have an aesthetically pleasing appearance.	Fish and Wildlife Coordination Act Endangered Species Act Clean Water Act National Historic Preservation Act	Forested sloughs have the potential for outdoor recreation in the form of hunting, fishing, and observing wildlife and natural areas.	Same as below.	Two landward forested sloughs will be impacted rather than corresponding areas riverward of the levee. Since landward areas are considered to have a greater natural resource value than riverward areas, impacts will be greater.	Impacts to natural resources will be greater than if riverward expansion of the levee base were pursued.
Expand existing levee riverward at two locations.	Bottomland woody vegetation and a water-filled ditch on the riverside of the levee.	Bottomland woody vegetation and water-filled ditches contribute to the needs of bottomland wildlife.	Initial surveys and records have not revealed any sites of significant value.	Bottomland vegetation and standing water have an aesthetically pleasing appearance.	Fish and Wildlife Coordination Act Endangered Species Act Clean Water Act National Historic Preservation Act	Bottomland vegetated areas and water-filled ditches have the potential for outdoor recreation in the form of hunting, fishing, and observing wildlife and natural areas.	Some areas concerned with this alternative are remote enough to be attractive to wildlife sensitive to human intrusion.	Impacts to two forested sloughs landward of the levee will be largely avoided, the impacts being shifted to the riverside. Since impacts are being diverted to an area of lesser natural resource value the net project impact will be less.	The net result of this alternative will lessen impacts to natural resources. This is the preferred plan.

most plentiful species. Most of the trees which could be affected are not fully mature. Area 1 (i.e., Station 336+00 to 385+00) concerns approximately 4,900 linear feet of the levee and has a ditch on the riverward side that appears to have been a levee borrow source at one time. During spring and early summer visits to the site, the ditch was dry in the southern half and filled with water in the northern half. Both the dry and water-filled parts of the ditch seemed more barren in terms of tree density, ground cover, and shoreline and aquatic vegetation than the landward areas - probably a result of the cyclic inundation which occurs on the riverward side. Expansion of the levee base along Area 1 would be from 40 to 50 feet (along 4,900 feet of levee) and would thus involve approximately 4.5 to 5.6 acres. In Area 2 (i.e., Station 174+00 to 190+00), approximately 1,600 linear feet of levee is affected and would thus involve 1.5 to 1.8 acres. Along Area 2, no open water areas on the river side of the levee would be filled. Again, as with Area 1, the riverside areas seem more barren in terms of tree density and ground cover - a probable result of cyclic inundation.

LANDWARD AREAS ADJACENT TO THE LEVEE: Terrestrial vegetation landward of the levee is more diverse than riverward and includes mast-producing trees. In addition to the willows, silver maples, and cottonwoods found riverward of the levee are green ash (Fraxinus lanceolata), sugar berry (Celtis laevigata), black cherry (Prunus serotina), eastern red bud (Cercis canadensis), shagbark hickory (Carya ovata), and several types of oaks (Quercus spp). Several, if not all, of these species have the potential to be affected by landward expansion of the levee base in the two levee stretches of concern. The tree species affected would be shoreline vegetation along the two permanent bodies of water. The landward bodies of water seemed to be less turbid and are more stable and diverse than permanent bodies of water found riverward of the levee. Riverward of the levee, sedimentation in the backwaters from high Mississippi River stages seems to have a more detrimental effect than landward sedimentation effects. Of the two landward areas, Area 1 is larger, more remote, less disturbed, and thus a higher quality natural resource than Area 2. An indication of the undisturbed and stable nature of Area 1 was the observation of a beaver lodge along its shoreline. Area 2 has three or four shoreline or nearby residences, and a hunting duck blind had been built on the levee side shoreline. However, both landward areas were of a higher natural resource quality than the riverward areas in terms of density and diversity of woody vegetation and ground cover and in terms of aquatic resource quality.

V. ENVIRONMENTAL CONSEQUENCES OF PREFERRED ACTION.

See table EA-2 for a summary of effects of the preferred action on natural and cultural resources.

A. Social Impacts of Preferred Action.

1. Community and Regional Growth and Community Cohesion.

Implementing the proposed design changes will have no effect on community or regional growth or on community cohesion.

TABLE EA-2

Effects of the Recommended Plan on
Natural and Cultural Resources

<u>Types of Resources</u>	<u>Authorities</u>	<u>Evaluation of Effects 1/</u>
Air Quality	Clean Air Act, as amended (42 U.S.C. 1987h-7, et seq.)	No permanent or long-term adverse effects. Will be in compliance with applicable air quality regulations.
Areas of Particular Concern Within the Coastal Zone	Coastal Zone Management Act in 1972, as amended (16 U.S.C. 1451, et seq.)	Not present in planning area.
Endangered and Threatened Species Critical Habitat	Endangered Species Act of 1973, as amended (16 U.S.C. 1531, et seq.)	No threat to the presence or continued existence of any federally listed endan- gered or threatened species is anticipated.
Floodplains	Executive Order 11988, Flood Plain Management	Existing development will receive additional protec- tion. Since the study area already has flood protec- tion, the project's influence on future develop- ment is expected to be limited.
Historic and Cultural Properties	National Historic Preservation Act of 1966, as amended (16 U.S.C. 470, et seq.)	No significant impacts anticipated.
Prime and Unique Farmland	CEQ Memorandum of 1 August 1980; Analysis of Impacts of Prime or Unique Agricultural Lands in Implementing the National Environmental Policy Act. Farmland Protection Policy Act.	No prime or unique farmland will be affected.
Water Quality	Clean Water Act of 1977, as amended (33 U.S.C. 1251, et seq.)	The proposed action will result in a net reduction of water quality impacts.
Wetlands	Executive Order 11990, Protec- tion of Wetlands, Clean Water Act of 1977, as amended (42 U.S.C. 1857h-7, et seq.)	Impacts to forested sloughs will be reduced.
Wild and Scenic Rivers	Wild and Scenic Rivers Act, as amended (16 U.S.C. 1271, et seq.)	Not present in planning area.

1/ If a type of resource is not present in the planning area, enter "Not present in planning area." If a type of resource is not affected, enter "No effect."

2. Displacement of People. No residential relocations would be necessitated by the proposed design changes.

3. Noise Levels. Noise levels from construction activities will remain the same whether the levee base is expanded to the landward or the riverward side.

4. Life, Health, and Safety. There will be no life, health, or safety effects from expanding the levee base riverward instead of landward.

B. Economic Impacts to Preferred Action.

1. Property Values and Tax Revenues. Landward areas will not be impacted. These areas will remain unchanged as natural resources. When the areas affected are compared to the total area protected by the project, potential tax revenue changes will not be appreciable.

2. Other Economic Factors. Public facilities and services, employment, and the labor force will not be affected by the design changes. There will be no influences on business and industrial development.

3. Farm Displacement. No land currently being farmed will be affected.

C. Environmental Impacts of Preferred Action.

1. Manmade Resources. No manmade resources have been identified in those areas to be affected by the proposed actions.

2. Natural Resources. At the two locations proposed (i.e., Stations 336+00 to 385+00 and 174+00 to 190+00 as shown on plate 1), the impacts from expansion of the levee base will be directed riverward instead of landward. At Area 1, approximately 4.5 to 5.6 acres riverward of the levee will be affected instead of the same area landward of the levee. At Area 2, the corresponding affected acreage is approximately 1.5 to 1.8 acres.

Since the landward areas have a higher natural resource value than riverward areas, the net result will be a reduction in natural resource impacts.

3. Cultural Resources. Surveys along the levee alignment during preauthorization project planning determined that expansion of the levee base either landward or riverward would not impact upon any cultural resources of value. Riverward expansion of the levee base at the two proposed sites will therefore not result in cultural resource concerns. Correspondence from the Illinois Department of Conservation (at that time the State Historic Preservation Officer) dated May 19, 1980, can be found in Appendix A - Pertinent Correspondence. A Record of Telephone Conversation, dated April 19, 1988, reaffirming this determination can also be found in appendix A.

4. Air Quality. Air quality impacts could result from construction equipment exhaust emissions and fugitive dust. These impacts would not be excessive or long lasting. No violations of air quality standards would be anticipated.

5. Water Quality. Original plans to expand the levee base landward would have discharged sand into forested sloughs and peripheral vegetation for a linear distance of about 6,500 feet. Riverward expansion is estimated to result in discharges into water for about half this distance. The riverside body of water is a ditch apparently created along the base of the levee when borrow was taken at some time in the past. Although plate 1 shows this ditch connecting to the Mississippi River near the mouth of Mill Creek, the water connection must only occur during high Mississippi River stages because during spring and early summer visits to the site the southern half of the ditch was dry. Since the levee is being raised with hydraulic borrow which would not be taken during high river stages, the expansion of the levee base into the riverside ditch will occur when it is an isolated body of water. Since sand is the material being discharged into the water (and is chemically stable) and the impacted body of water will be isolated, water quality impacts would be expected to be localized and temporary. The riverside ditch is also judged to be an aquatic resource of lesser quality than the landward forested sloughs. Riverward expansion of the levee base is thus expected to substantially decrease water quality and aquatic resource impacts compared to the originally planned landward expansion.

6. Water Conservation. The proposed design changes to the Flood Damage Reduction project are not expected to increase or decrease water use or losses.

VI. ENVIRONMENTAL IMPACTS OF NONPREFERRED ALTERNATIVES.

Expand Existing Levee Landward at Two Locations. Under this alternative, two forested sloughs will be impacted rather than corresponding areas riverward of the levee. Since landward areas are considered to have a greater natural resource value than riverward areas, the impacts to natural resources will be greater.

VII. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED.

The discharge of sand into areas adjacent to the levee when expanding the levee base in order to raise the levee cannot be avoided. However, discharging the material riverward instead of landward in the areas of concern will lessen the cumulative environmental impact since in the areas of concern the riverward areas are considered to be of lesser natural resource quality. Riverward expansion of the levee base will also decrease by about one-half the amount of discharge into permanent bodies of water located at the base of the levee.

VIII. RELATIONSHIP BETWEEN SHORT-TERM USE OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY.

Over the short term, riverward areas adjacent to the levee would be disturbed by construction activities.

Over the long term, areas adjacent to the levee will stabilize. There will be a net loss of some bottomland woody vegetation and part of a water filled ditch at the riverward base of the levee.

IX. ANY IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED IF THE PROPOSED ACTION SHOULD BE IMPLEMENTED.

Borrow material (i.e., sand) used for levee construction will be unavailable for other uses. The commitment of the material is not irreversible since the material could be reused if the levee system were to be abandoned or removed. The sand, obtained from Mississippi River channel border and backwater areas, is sometimes a questionable resource since in the Mississippi River it is often a liability to navigation and as sediment a detriment to the aquatic resource.

Manpower and fuel expended would be irretrievably lost.

X. RELATIONSHIP OF THE PROPOSED PROJECT TO LAND-USE PLANS.

At the two areas along the mainstem levee where the levee base will be expanded riverward, the riverward land is in a natural to semi-natural state. Semi-natural describes the water-filled ditch, apparently created by former borrow activities which would otherwise have a different topography. These natural to seminatural areas will be occupied by the levee after implementation of the proposed design changes.

XI. COMPLIANCE WITH ENVIRONMENTAL QUALITY STATUTES.

A summary of compliance can be found in table EA-3.

A. Endangered Species. The proposed actions have been coordinated with the U.S. Fish and Wildlife Service. A second addendum to their July 13, 1982, Fish and Wildlife Coordination Act Report for the project can be found in Appendix A - Pertinent Correspondence. The Fish and Wildlife Service concluded that no suitable habitat for federally listed endangered species would be affected by the proposed actions. Plans to use a proposed borrow site mentioned in the second addendum have been abandoned.

TABLE EA-3

Compliance of the Preferred Plan with WRC
Designated Environmental Statutes

<u>Federal Policies</u>	<u>Compliance</u>
Archaeological and Historic Preservation Act, 16 U.S.C. 469, et seq.	Full compliance
Clean Air Act, as amended, 42 U.S.C. 1857h-7, et seq.	Full compliance
Clean Water Act (Federal Water Pollution Control Act) 33 U.S.C. 1251, et seq.	Full compliance
Coastal Zone Management Act, 16 U.S.C. 1451, et seq.	Not applicable
Endangered Species Act, 16 U.S.C. 1531, et seq.	Full compliance
Estuary Protection Act, 16 U.S.C. 1221, et seq.	Not applicable
Federal Water Project Recreation Act, 16 U.S.C. 460-1(12), et seq.	Full compliance
Fish and Wildlife Coordination Act, 16 U.S.C. 601, et seq.	Full compliance
Land and Water Conservation Fund Act, 16 U.S.C. 1401, et seq.	Not applicable
Marine Protection Research and Sanctuary Act, 33 U.S.C. 1401, et seq.	Not applicable
National Environmental Policy Act, 42 U.S.C. 4321, et seq.	Full compliance
National Historic Preservation Act, 16 U.S.C. 470a, et seq.	Full compliance
Rivers and Harbors Act, 33 U.S.C. 403, et seq.	Not applicable
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq.	Not applicable
Wild and Scenic Rivers Act, 16 U.S.C. 1271, et seq.	Full compliance

NOTES:

- a. Full compliance. Having met all requirements of the statute for the current stage of planning (either preauthorization or postauthorization).
- b. Partial compliance. Not having met some of the requirements that normally are met in the current stage of planning. Partial compliance entries should be explained in appropriate places in the report and referenced in the table.
- c. Noncompliance. Violation of a requirement of the statute. Noncompliance entries should be explained in appropriate places in the report and referenced in the table.
- d. Not applicable. No requirements for the statute required; compliance for the current stage of planning.

B. Archeological-Historical. Surveys along the levee alignment during preauthorization project planning determined that expansion of the levee base either landward or riverward would not impact upon any cultural resources of value. These determinations were coordinated with the State Historic Preservation Officer (SHPO) at that time. Riverward expansion of the levee base at the two proposed sites will therefore not result in cultural resource concerns. Correspondence from the Illinois Department of Conservation (who then was the State Historic Preservation Officer) dated May 19, 1980, can be found in Appendix A - Pertinent Correspondence. A Record of Telephone Conversation dated April 19, 1988, reaffirming this determination can also be found in Appendix A.

C. Federal Water Project Recreation Act. No opportunities for recreational development or aspects of the proposed levee alignment changes conducive to recreational development have been identified.

D. Fish and Wildlife Coordination Act. The proposed design changes have been coordinated with the U.S. Fish and Wildlife Service and the Illinois Department of Conservation. A second addendum to the July 13, 1982, Final Fish and Wildlife Coordination Act Report can be found in Appendix A - Pertinent Correspondence. A record of a telephone conversation with the Illinois Department of Conservation can also be found in appendix A.

E. Wild and Scenic Rivers Act. No rivers listed as "Wild and Scenic" are located in the project area.

F. Executive Order 11988 (Flood Plain Management). The proposed changes in the levee alignment are aspects of the overall flood damage reduction project. Compliance with Executive Order 11988 is therefore relevant to the whole project. The selected plan is considered to be compatible with Executive Order 11988. While the potential floodplain development in the South Quincy Drainage and Levee District is expected to be significant, only a small percentage of the growth is estimated to be attributable to the influx of new commercial/industrial facilities as a result of the increased level of flood protection. The magnitude of this induced growth would be minimal and is not considered contrary to the principles of the executive order.

New industrial expansion is expected to be in the vicinity of the existing industrial complex. The vast majority of the future growth would occur from existing industries. This growth is expected to occur for the "without project" condition as well as under the proposed project and would not impact on remaining natural surface waters and forested areas contained in the district.

Extensive residential development has not occurred in the floodplain study area. This can be attributed to the availability of practicable and more desirable alternatives for residential development in the city of Quincy. Attractive alternatives also exist within the city for commercial and non-water dependent industrial expansion.

G. Executive Order 11990 (Protection of Wetlands). Executive Order 11990 directs Federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands when a practicable alternative exists. Expansion of the levee base in the two areas of concern will impact upon wetlands whether expansion occurs to the landward or riverward side. Site inspections have resulted in the determination that the natural resource quality of those areas landward of the levee is greater than for those riverward of the levee. The net impact to wetlands from the proposed riverward expansion is thus judged to be less than for landward expansion. Thus, since the proposed actions are judged to result in a net reduction of wetland impacts, they would be in compliance with the intent of Executive Order 11990.

H. Clean Water Act (Section 401 and 404). Section 404 and 401 requirements for landward expansion of the levee base were addressed in the project Final Environmental Impact Statement (with accompanying Section 404(b)(1) Evaluation) filed with the U.S. Environmental Protection Agency on July 8, 1983, and submitted with the project report to the United States Congress prior to project authorization. These aspects of the project were additionally addressed by an Environmental assessment and a Finding of No Significant Impact (signed on March 30, 1987), a Section 404(b)(1) Evaluation, a Section 404 Public Notice issued on January 14, 1987, and Section 401 Certification obtained from the Illinois Environmental Protection Agency by letter dated March 17, 1987.

The proposed riverward expansion of the levee base will impact a body of water not previously addressed, i.e., the riverward ditch at the base of the levee apparently formed by former borrow activities. Therefore, a Section 404(b)(1) Evaluation has been prepared and accompanies this Environmental Assessment. A Section 404 Public Notice has been issued and an application for Section 401 Certification has been submitted to the Illinois Environmental Protection Agency.

I. Clean Air Act. No aspects of the proposed project design changes have been ascertained to result in violation of air quality standards. Exhaust emissions and fugitive dust particles are the only concerns and will be essentially the same whether expansion of the levee base is riverward or landward.

J. National Economic Development (NED) Plan. The NED Plan is the plan which best satisfies the Federal planning objectives of increasing the value of the Nation's output of goods and services and produces the most improvement to the national economic efficiency. The proposed design changes are part of the recommended plan, i.e., raising the existing levee to the 500-year frequency level of protection, which is considered to best fulfill the NED objective.

XII. CONCLUSIONS.

Proposed riverward expansion of the levee base in the two areas of concern (plate 1) will result in a net reduction in natural resource impacts compared to landward expansion as originally planned. Landward bodies of water in these areas are less affected by sedimentation and water level fluctuations than riverward areas, and landward terrestrial vegetation is more diverse (including mast-producing woody vegetation). The landward bodies of water and peripheral vegetation are thus perceived to have a greater natural resource value than riverward areas.

XIII. COORDINATION.

The proposed riverward expansion of the levee base in the two areas specified (rather than landward expansion as originally planned) is being coordinated with the following agencies:

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- Illinois Department of Conservation
- Illinois Environmental Protection Agency
- Illinois State Historic Preservation Officer
- U.S. Soil Conservation Service

A second addendum to the July 13, 1982, Fish and Wildlife Coordination Act Report can be found in Appendix A - Pertinent Correspondence. Records of telephone conversations with the U.S. Environmental Protection Agency, the Illinois Department of Conservation, the U.S. Soil Conservation Service, and the Illinois State Historic Preservation Officer also can be found in appendix A.

FINDING OF NO SIGNIFICANT IMPACT

FLOOD DAMAGE REDUCTION STUDY
SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT
ADAMS COUNTY, ILLINOIS
DESIGN CHANGE TO EXPAND LEVEE RIVERWARD AT TWO LOCATIONS

I have reviewed the information provided by this Environmental Assessment, along with data obtained from Federal and State agencies having jurisdiction by law or special expertise, and from the interested public, and find that:

Riverward expansion of the levee base from Station 336+00± to Station 385+00± and Station 174+00± to Station 190+00± instead of landward as originally planned in connection with the South Quincy Drainage and Levee District Flood Damage Reduction Project will not significantly affect the quality of the human environment. Therefore, it is my determination that a Supplement to the Final Environmental Impact Statement is not required. This determination will be reevaluated if warranted by later development.

"No Federal Action" was the only alternative considered during the planning of the aforementioned project design changes.

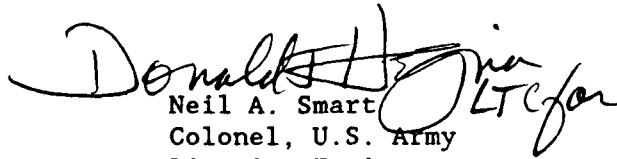
Factors considered in making a determination that a Supplement to the Final Environmental Impact Statement was not required were:

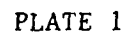
a. Riverward expansion of the levee base in the two areas specified will result in a net reduction of impacts to natural resources compared to landward expansion as was originally planned.

b. No significant social, economic, environmental, or cultural impacts are anticipated as a result of implementing the proposed design changes.

9 JUN 88

Date


Neil A. Smart
Colonel, U.S. Army
District Engineer



APPENDIX A

Pertinent Correspondence

Illinois



Department of Conservation

life and land together

605 N. G. STATION BUILDING • 401 SOUTH SECOND STREET • SPRINGFIELD, ILLINOIS 62761

May 19, 1980

Mr. Doyle W. McCulley
Department of the Army
Rock Island District Corps
Clock Tower Building
Rock Island, IL 61201

RE: Survey of the City of
Quincy and South Quincy
Levee Drainage Districts
Adams County, Illinois

Dear Mr. McCulley:

This letter is to inform you that the Department of Conservation has reviewed the two archaeological survey reports which you sent to the Department of Conservation. Our comments concerning each of the reports are as follows:

(1) The Archaeological Significance of the
Quincy, Illinois, Flood Study Area

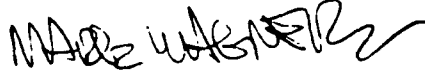
This report concluded that the Quincy Flood Study Area not only contains known archaeological sites but also has a high potential for containing additional sites which have not yet been discovered. If the archaeological sites within the project area are to be disturbed, plans for mitigation should be submitted. A specific recommendation of the survey report was that those areas of the project site which are thought to have a high potential for containing archaeological sites should be tested to determine if this is indeed the case. This recommendation should be implemented before construction begins.

(2) An Archaeological Survey of the South
Quincy Drainage and Levee District,
Levee Improvement Project, Adams
County, Illinois

This survey covered approximately 200 acres of the Mississippi River floodplain and found that no important cultural resources were present in this area which might be damaged by the South Quincy Levee Project. The Department of Conservation agrees with this assessment of the archaeological potential of the project area and our position is that the project will have no affect on historic, architectural or archaeological sites in the area.

If you have any further questions concerning this matter,
please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'MARK WAGNER' with a stylized flourish at the end.

Mark Wagner
National Register Archaeologist

MW/LSA

CONVERSATION RECORD

TIME

DATE

19 Apr 88

TYPE

☐ VISIT☐ CONFERENCE☒ TELEPHONE☒ INCOMING☐ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT
WITH YOU

Jim Yingst

ORGANIZATION (Office, dept., bureau,
etc.)

Illinois SHPO

TELEPHONE NO:

217/785-1279

SUBJECT

SHPO Sign-Off for S. Quincy Levee Design Changes

SUMMARY

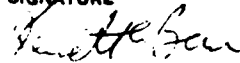
Discussed S. Quincy design changes with Mr. Yingst. Told him that the alternative borrow location was no longer being considered and would not be impacted by this project. Also discussed the two minor levee alignment changes. I told Mr. Yingst that the area had been surveyed and SHPO had signed-off on area 19 May 1980. Mr. Yingst indicated that this sign-off was still good for the alignment modifications

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

KENNETH A. BARR
Archeologist, PD-E

SIGNATURE



DATE

19 Apr 88

ACTION TAKEN

SIGNATURE

TITLE

DATE

50271-101

★ U.S. GPO 1987-181-247/80121

CONVERSATION RECORD

OPTIONAL FORM 271 (12-78)
DEPARTMENT OF DEFENSE



United States Department of the Interior

FISH AND WILDLIFE SERVICE

ROCK ISLAND FIELD OFFICE (ES)

1830 Second Avenue, Second Floor

Rock Island, Illinois 61201

IN REPLY REFER TO:

COM: 309-793-560

FTS: 386-5300

June 24, 1987

Colonel Neil A. Smart
District Engineer
U.S. Army Engineer District
Rock Island
Clock Tower Building, P.O. Box 2004
Rock Island, Illinois 61204-2004

Dear Colonel Smart:

This letter constitutes a second addendum to our July 13, 1982 Fish and Wildlife Coordination Act Report for the South Quincy Drainage and Levee District project in Adams County, Illinois. On May 14, 1987 a biologist from our staff accompanied Rock Island District representatives to South Quincy Drainage and Levee District to inspect proposed changes to the levee raise project. The changes involve designation of a second borrow site for impervious material and expanding the base of the levee riverward in two areas. In general, we have no objection to the changes as proposed.

The second borrow site is located on the top of the bluffs in an agricultural area currently planted in row crops. No trees would be removed and no significant fish or wildlife resources would be affected.

The proposed levee alignment change at the southern end of the district, Stations 336+00 to 385+00, would shift the toe of the levee about 40 feet riverward of the existing alignment. By making this change, fill in valuable wetland slough habitat that we understand the landowners wish to protect, would be avoided. Instead, silver maple, cottonwood and willow trees which are not fully mature would be removed. The fill would also extend into a ditch, the southern half of which was dry silt at the time of inspection, and the other half filled with water. The ditch was determined to be less valuable habitat than the slough within the levee district. However, to minimize impacts to aquatic resources, the levee should be aligned so that disturbed lands adjacent to the levee would be covered first and the ditch filled only as necessary. Mitigation for fill in the ditch would be the same as proposed for fill in the slough: creation of a 5-acre borrow wetland adjacent to Mill Creek, as described in our Fish and Wildlife Coordination Act Report.

The expansion of the toe of the levee riverward at Stations 174+00 to 190+00 would also involve the removal of bottomland hardwoods and fill into a ditch or dry slough. Unlike the other riverward expansion, no open water areas would be filled. Removal of the bottomland hardwoods and fill into the dry slough would be less damaging than placing fill into the adjacent lake within the levee district. Levee alignment should be similar to the other riverward

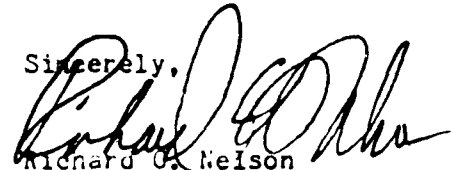
expansion - i.e. the levee should be aligned over the adjacent disturbed area first, filling riverward only as necessary. Mitigation for habitat losses are included in the wetlands development adjacent to Mill Creek.

Endangered Species

These areas of proposed project changes were inspected by a biologist of the U.S. Fish and Wildlife Service and it was determined no suitable habitat for endangered species existed. This precludes the need for further action on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. Should this project be modified, or new information indicate endangered species may be affected, consultation should be initiated.

This letter provides comment under the authority of and in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.); the National Environmental Policy Act of 1969, as amended; the Endangered Species Act of 1973, as amended; and in accordance with the Fish and Wildlife Service's Mitigation Policy.

Sincerely,


Richard G. Nelson
Field Supervisor

cc: IDOC (Lutz, Sallee)

CONVERSATION RECORD

TIME 11:00

DATE 7 APRIL 1988

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☒ INCOMING

☐ OUTGOING

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

BOB SCHANZLE

ORGANIZATION (Office, dept., bureau, etc.)

IL D.O.C.

TELEPHONE NO.

(217) 782-4543

ROUTING

NAME/SYMBOL

INT

SUBJECT

DESIGN CHANGES, SOUTH QUINCY D&LD, FLOOD
DAMAGE REDUCTION PROJECT.

SUMMARY

1. MR SCHANZLE WAS RETURNING MY EARLIER CALL.

2. I EXPLAINED THE PROPOSED DESIGN CHANGES TO MR SCHANZLE (I.E. EXPANDING THE LEVEE BASE RIVERWARD INSTEAD OF LANDWARD AS ORIGINALLY PLANNED AT TWO LOCATIONS) INCLUDING A DESCRIPTION OF THE AREAS INVOLVED, THE IMPACTS, AND THE FACT THAT THE PROPOSED ACTIONS WOULD RESULT IN A NET REDUCTION OF NATURAL RESOURCE IMPACTS.

3. MR SCHANZLE SAID HE DIDN'T THINK HIS AGENCY WOULD HAVE ANY OBJECTIONS TO THE MODIFICATIONS AS DESCRIBED AND THEY MIGHT COMMENT FURTHER AFTER REVIEW OF THE ENVIRONMENTAL ASSESSMENT.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

BOB VANDERJACK

SIGNATURE

Robert C. Vandeyack

DATE

7 APRIL 1988

ACTION TAKEN

SIGNATURE

TITLE

DATE

CONVERSATION RECORD

TIME 11:45

DATE 7 APRIL 1988

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL IN

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

JENNIFER BROWN

ORGANIZATION (Office, dept., bureau, etc.)

U.S. EPA
CHICAGO, IL

TELEPHONE NO.

(312)
886-6873

SUBJECT

DESIGN CHANGES, SOUTH QUINCY DELTA, FLOOD
DAMAGE REDUCTION PROJECT.

SUMMARY

① I EXPLAINED THE PROPOSED DESIGN CHANGES TO MS BROWN (I.E. EXPANDING THE LEVEE BASE RIVERWARD INSTEAD OF LANDWARD AS ORIGINALLY PLANNED AT TWO LOCATIONS), INCLUDING A DESCRIPTION OF THE AREAS INVOLVED, THE IMPACTS, AND THE FACT THAT THE PROPOSED ACTIONS WOULD RESULT IN A NET REDUCTION OF NATURAL RESOURCE IMPACTS.

② MS BROWN FELT SHE WOULD NEED TO REVIEW THE ENVIRONMENTAL ASSESSMENT BEFORE SHE COULD RESPOND OFFICIALLY.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

BOB VANDERJACK

SIGNATURE

Robert C. Vanderjack

DATE

7 APRIL 1988

ACTION TAKEN

SIGNATURE

TITLE

DATE

CONVERSATION RECORD

TIME
P.M.

DATE
7 APRIL 1988

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☒ INCOMING

☐ OUTGOING

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT
WITH YOU

MIKE TRYBA

ORGANIZATION (Office, dept., bureau,
etc.)

S.C.S., DISTRICT
CONS., ADAMS, Co.

TELEPHONE NO.

(217)
224-9305

SUBJECT

DESIGN CHANGES, SOUTH QUINCY D'LD FLOOD
DAMAGE REDUCTION PROJECT.

ROUTING

NAME/SYMBOL

INT

SUMMARY

- ① MR TRYBA WAS RETURNING MY EARLIER CALL.
- ② I EXPLAINED THE PROPOSED DESIGN CHANGES TO MR TRYBA
(I.E. RIVERWARD EXPANSION OF THE LEVEE BASE AT TWO LOCATIONS
INSTEAD OF LANDWARD EXPANSION AS ORIGINALLY PLANNED) AND
ASKED IF THE RIVERWARD AREAS MIGHT BE CONSIDERED TO BE
PRIME OR UNIQUE FARMLAND.
- ③ MR TRYBA SAID THAT BECAUSE OF THE CYCLIC INUNDATION OF
AREAS RIVERWARD OF THE LEVEE FROM HIGH RIVER STAGES THE
RIVERWARD AREAS WOULD NOT BE CLASSIFIED AS PRIME OR
UNIQUE FARMLAND.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

BOB VANDERJACK

SIGNATURE

Robert C. Vanderjack

DATE

7 APRIL 1988

ACTION TAKEN

SIGNATURE

TITLE

DATE

CLEAN WATER ACT

SECTION 404(b)(1) EVALUATION



REPLY TO
ATTENTION OF

CENCR-PD-E

DEPARTMENT OF THE ARMY

ROCK ISLAND DISTRICT, CORPS OF ENGINEERS

CLOCK TOWER BUILDING - P.O. BOX 2004

ROCK ISLAND, ILLINOIS 61204-2004

CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION

FLOOD DAMAGE REDUCTION STUDY

DESIGN CHANGE TO EXPAND
LEVEE RIVERWARD AT TWO LOCATIONS

SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT
ADAMS COUNTY, ILLINOIS

APRIL 1988

CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION

FLOOD DAMAGE REDUCTION STUDY

DESIGN CHANGE TO EXPAND
LEVEE RIVERWARD AT TWO LOCATIONS

SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT
ADAMS COUNTY, ILLINOIS

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List of Plates

- 1 Site of Proposed Discharge

CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION

FLOOD DAMAGE REDUCTION STUDY

DESIGN CHANGE TO EXPAND
LEVEE RIVERWARD AT TWO LOCATIONS

SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT
ADAMS COUNTY, ILLINOIS

I. PROJECT DESCRIPTION.

A. Location. The South Quincy Drainage and Levee District Flood Damage Reduction Project is located in Adams County, Illinois, south of the city of Quincy between Mississippi River miles (RM) 318.5 to 325.5. The discharge being addressed by this evaluation is located in the southwest portion of the project area at approximate RM 319 (plate 1).

B. General Description. The South Quincy Drainage and Levee District levee is being raised to provide additional protection from the 500-year frequency flood event for high quality agricultural lands and existing industrial and commercial activities. Two design changes are being proposed for the project:

1. Expand the existing levee riverward instead of landward from Station 336+00± to Station 385+00± to avoid impacting a landward forested slough.

2. Expand the existing levee riverward instead of landward from Station 174+00± to Station 190+00± to avoid impacting a landward forested slough.

Only Design Change No. 1 will result in a discharge of material into a body of water and thus requires processing under Sections 404 and 401 of the Clean Water Act.

C. Authority and Purpose. On December 11, 1969, the Committee on Public Works of the House of Representatives passed a resolution to conduct studies to investigate the feasibility of improving levee systems along the Mississippi River from Coon Rapids Dam to the mouth of the Ohio River. The results of the studies indicated that Federal participation in improvements were warranted for the South Quincy Drainage and Levee District.

D. General Description of Dredged or Fill Material. The discharge of material into a permanent body of water will take place along the riverward toe of the main stem levee at approximate Mississippi River Mile 319. The main stem levee is being raised with sand dredged from Mississippi River channel border and side channel areas. The riverward area where the levee base will be expanded into is a ditch apparently formed by former levee borrow

activities. This area is about 4,900 feet long. During spring and early summer site visits, the northern half of the ditch was filled with water and the southern half was dry. Considering a 40- to 50-foot expansion of the levee base, an average 3-foot depth in the ditch, and an estimate that only the northern half of the ditch contained water, the amount of sand being deposited below the ordinary high water mark would range from 11,000 to 13,500 cubic yards.

E. Description of the Proposed Discharge Site. The discharge site is a ditch located at the riverward toe of the main stem levee at approximate RM 319 (plate 1). The discharge will be along about 4,900 feet of the levee and will affect approximately 4.5 to 5.6 acres of the riverward ditch. The ditch appears to have been formed by former borrow activities associated with the levee. During spring and early summer visits to the site, the ditch was dry in the southern half and filled with water in the northern half. Both the northern and southern halves of the ditch were overlain with silt deposits, most likely sedimentation from high Mississippi River stages. In the dry southern half of the ditch, because of woody growth (primarily silver maple Acer saccharinum) and possibly because less borrow was taken, the characterization of the levee toe area as a ditch is much less distinct than in the northern half. Although subject to frequent inundation, the dry conditions and the presence of trees in the southern half of the ditch raise questions as to whether this part of the ditch should be considered an aquatic resource. When the southern half of the ditch is dry, the water-filled northern half is an isolated body of water separated from the Mississippi River by a band of woods ranging from 100 to 600 feet wide. As water levels rise on the river, the southern half of the ditch fills and provides a water connection to the river at the downstream end. At still higher river stages, the wooded areas between the ditch and the river become inundated.

The timing and duration of the discharge will be integrated into the construction schedule of the South Quincy Flood Damage Reduction Project.

F. Description of Disposal Method. Sand will be hydraulically dredged from Mississippi River channel border and side channel areas and deposited on the existing levee. The sand is then mechanically moved about to shape and form the levee.

II. FACTUAL DETERMINATIONS.

A. Physical Substrate Determinations. The shores of the ditch where the discharge will take place are gently sloped and it is estimated that when filled to the ordinary high water mark the central part of the ditch might be about 6 feet deep. During spring and early summer site inspections, water levels in the northern water-filled half of the ditch were below the ordinary high water mark and the substrate could be observed to be silty deposits. In the dry southern half of the ditch surface, materials were also silty.

The ditch is a non-flowing body of water and the fill for levee construction is expected to be physically stable. A substantial tree line exists between the levee and the river, so wavewash during high river stages should not be a problem.

Any benthic organisms in the filled portion of the ditch would be covered over. However, a resources survey that sampled other similar nearby backwaters revealed a low benthic diversity, and the benthic groups present were those typically tolerant of poor or marginal aquatic habitat conditions.

B. Water, Circulation, and Salinity Determinations.

1. Water. The Mississippi River, its backwaters, and nearby isolated bodies of water are inland, freshwater resources. Salinity is therefore not a concern.

The ditch is relatively shallow, i.e., about 6 feet deep in the center at ordinary high water levels and has shallow, gently sloping shorelines. Periodic sedimentation impacts occur when high river stages inundate the area. During warm weather/low water stages, the deeper parts of the ditch may approach 3 or 4 feet deep, water temperature may become elevated, and dissolved oxygen levels could be marginal for aquatic life. During different times of the year then, with varying river stages and outdoor temperatures, the ditch could exhibit periods of high turbidity and marginal conditions for supporting aquatic life. Normal water quality parameters, color, odor, taste, nutrients, and eutrophic conditions, could all verge on undesirable levels at various times of the year because of the severe fluctuations in depth, temperature, and suspended sediment load to which the ditch could be subjected.

2. Current Patterns and Circulation. The riverward ditch would normally be an isolated, non-flowing body of water. During high stage levels on the Mississippi River, additional water could enter the ditch, first by backing up from the downstream end and then by overland flow. In all cases, water movement would range from standing to sluggish. For purposes of this evaluation, the ditch would thus be best described as exhibiting no current patterns or circulation.

The ditch is shallow enough and water levels fluctuate enough that no long-lasting thermal stratification probably develops. Although the ditch is sheltered from the wind by the riverward tree line and the landward levee, the cross-sectional shape of the ditch would be conducive to wind mixing which might further impede stratification.

3. Normal Water Level Fluctuations. Pool 22 of the Mississippi River (opposite the project area) is regulated to maintain a flat pool elevation of 459.5 feet MSL for navigation purposes. The water surface elevation of the riverward ditch is approximately the same. Land surface elevations adjacent to the ditch range up to 465 feet MSL. In the part of Pool 22 where the project is located, pool elevations may vary 1 foot on a daily cycle, up to 10 feet on a yearly cycle, and up to 20 feet on rare occasions. The 1-foot water level changes (above flat pool) which occur

in Pool 22 on a frequent basis probably result in similar water level fluctuations in the riverward ditch. Water level changes in Pool 22 between 1.0 and 5.5 feet above flat pool would first affect the riverward ditch by backup water from the downstream end of the ditch and then from overland flow. These influences on water levels in the ditch could occur several times a year. With water levels 5.5 feet and higher above flat pool, the ditch and all the riverward lands would be inundated. This would occur yearly and possibly more frequently.

4. Actions Taken to Minimize Impacts. The proposal to expand the levee base riverward instead of landward as originally planned is considered to result in a net reduction of natural resource impacts. Forested sloughs landward of the levee are judged to be of higher natural resource quality than the riverward ditch.

C. Suspended Particulate/Turbidity Determinations. The placement of sand fill into the riverward ditch when expanding the levee base will produce increases in suspended particulate matter and turbidity. These effects will be temporary and will occur in waters that periodically experience turbidity and sedimentation impacts from high Mississippi River stages.

During construction, dissolved oxygen levels are likely to decrease but would return to normal levels when the disturbance from construction has ceased. During warm weather/low water periods of the year, dissolved oxygen levels are anticipated to be marginal for aquatic life. Toxic metals, organics, and pathogens are not expected to be of concern. Since the disposal site is isolated, aesthetic impacts will be minimal.

Aquatic vegetation was not observed in the ditch. Development of aquatic vegetation may be limited by frequent periods of high turbidity. The periodic marginal conditions in the ditch and the lack of current probably limit its use by filter feeders and sight feeders. No photosynthetic, filter feeder, or sight feeder impacts of concern are thus anticipated.

D. Contaminant Determinations. The sand which will be discharged into the riverside ditch will be chemically stable and noncontaminating. The substrate in the riverside ditch is silty and likely the result of deposition which occurs during high Mississippi River stages. Analysis of similar Mississippi River backwater sediments has shown that contamination of these sediments is unlikely. In addition, the isolated nature of the riverward ditch would localize any impacts which would in turn ameliorate with the settling of any disturbed sediments. Therefore, the introduction of contaminants into project area waters or the redistribution of contaminants which might already be present is not anticipated.

E. Aquatic Ecosystem and Organism Determinations. The riverward ditch is isolated from the Mississippi River except during high river stages. Fish might enter the ditch to spawn during these periods, and stranding of spawning and hatchling fish would be likely. Once stranded, survival would be unlikely since temperature, oxygen, and food supply requirements in the ditch would

reach marginal values during the year. These marginal conditions would result from the relatively shallow, silted nature of the ditch. An environmental resources inventory was conducted during the feasibility study.

Sampling in a nearby riverward backwater collected only two groups of benthic organisms, Chironomidae and Oligochaeta. This low diversity was attributed to low flow and substrate type. The riverside ditch is similar to the backwater that was sampled.

Because of the periodic marginal conditions in the ditch, no impacts of concern to plankton, the aquatic food web, special aquatic sites, sanctuaries, refuges, wetlands, mudflats, vegetated shallows, or pool and riffle complexes are anticipated.

Since the proposed discharge is occurring in a freshwater situation, there will be no impacts to coral reefs.

The proposed action has been coordinated with the U.S. Fish and Wildlife Service and it has been determined that there will be no effect on federally listed threatened or endangered species.

No notable impacts to other wildlife from the proposed action have been identified.

F. Proposed Disposal Site Determinations. Since the proposed discharge will be taking place in an isolated or relatively isolated body of water, there will be no offsite or downstream "mixing zone" type of effects.

No violations of applicable water quality standards are anticipated.

Because of the isolated, remote, and "ditch" characterizations of the body of water being impacted, no impacts to municipal or private water supplies, recreational or commercial fisheries, water-related recreation, aesthetics, or recognized national natural resources are expected.

G. Determination of Cumulative or Secondary Effects on the Aquatic Ecosystem. Expanding the levee base riverward instead of landward (as originally planned) in the two proposed locations will result in a net reduction of cumulative impacts to natural resources. Any secondary effects are expected to be positive.

III. FINDINGS OF COMPLIANCE OR NONCOMPLIANCE WITH THE RESTRICTIONS ON DISCHARGE.

A. Adaption of the Section 404(b)(1) Guidelines to This Evaluation. No adaptations to the Section 404(b)(1) guidelines were made in conducting this evaluation.

B. Evaluation of Availability of Practicable Alternatives to the Proposed Discharge Sites Which Would Have Less Adverse Impacts on the Aquatic Ecosystem. The alternative to riverward expansion of the levee base in the two proposed reaches is landward expansion as was originally planned. These

changes to the project design were coordinated with the U.S. Fish and Wildlife Service and it was mutually agreed that in these particular situations riverward expansion of the levee base would be less disruptive to natural resources.

C. Compliance With Applicable State Water Quality Standards. Compliance with State water quality standards is accomplished through application for certification or waiver of certification under Section 401 of the Clean Water Act. This application is in progress and will be accomplished before any administrative actions on the proposed design changes are implemented.

D. Compliance With Applicable Toxic Effluent Standards or Prohibition Under Section 307 of the Clean Water Act. It is anticipated that the proposed project design changes will not introduce toxic substances into nearby waters or result in appreciable increases in existing levels of toxic materials.

E. Compliance With Endangered Species Act of 1973. No significant impact to federally listed threatened or endangered species is anticipated as a result of the proposed design changes. An addendum to the U.S. Fish and Wildlife Service Coordination Act Report for the project supports these determinations.

F. Compliance With Specified Protection Measures for Marine Sanctuaries Designated by the Marine Protection, Research, and Sanctuaries Act of 1972. The proposed design changes are part of a project occurring in a fresh water inland river system. No marine sanctuaries are involved.

G. Evaluation of Extent of Degradation of the Waters of the United States. No municipal or private water supplies would be affected by the proposed action. In addition, no recreational or commercial fisheries would be affected. Plankton, fish, shellfish, wildlife, and special aquatic site impacts would be minimal to nonexistent.

No significant effects on aquatic ecosystems or on wildlife dependent on aquatic ecosystems are anticipated. The aquatic ecosystem which will be affected has no recognized significant recreational, aesthetic, or economic values.

H. Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of the Discharge on the Aquatic Ecosystem. The proposal to expand the levee base riverward (instead of landward as originally proposed) will result in a net reduction of impacts to natural resources. The sand discharged into the riverward ditch will be chemically and physically stable and noncontaminating.

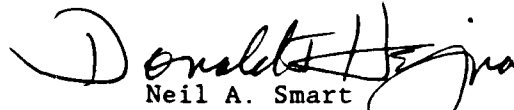
I. Conclusions. On the basis of the guidelines, the proposed design changes to the South Quincy Flood Damage Reduction Project which will result in riverward discharges into a water-filled ditch instead of landward

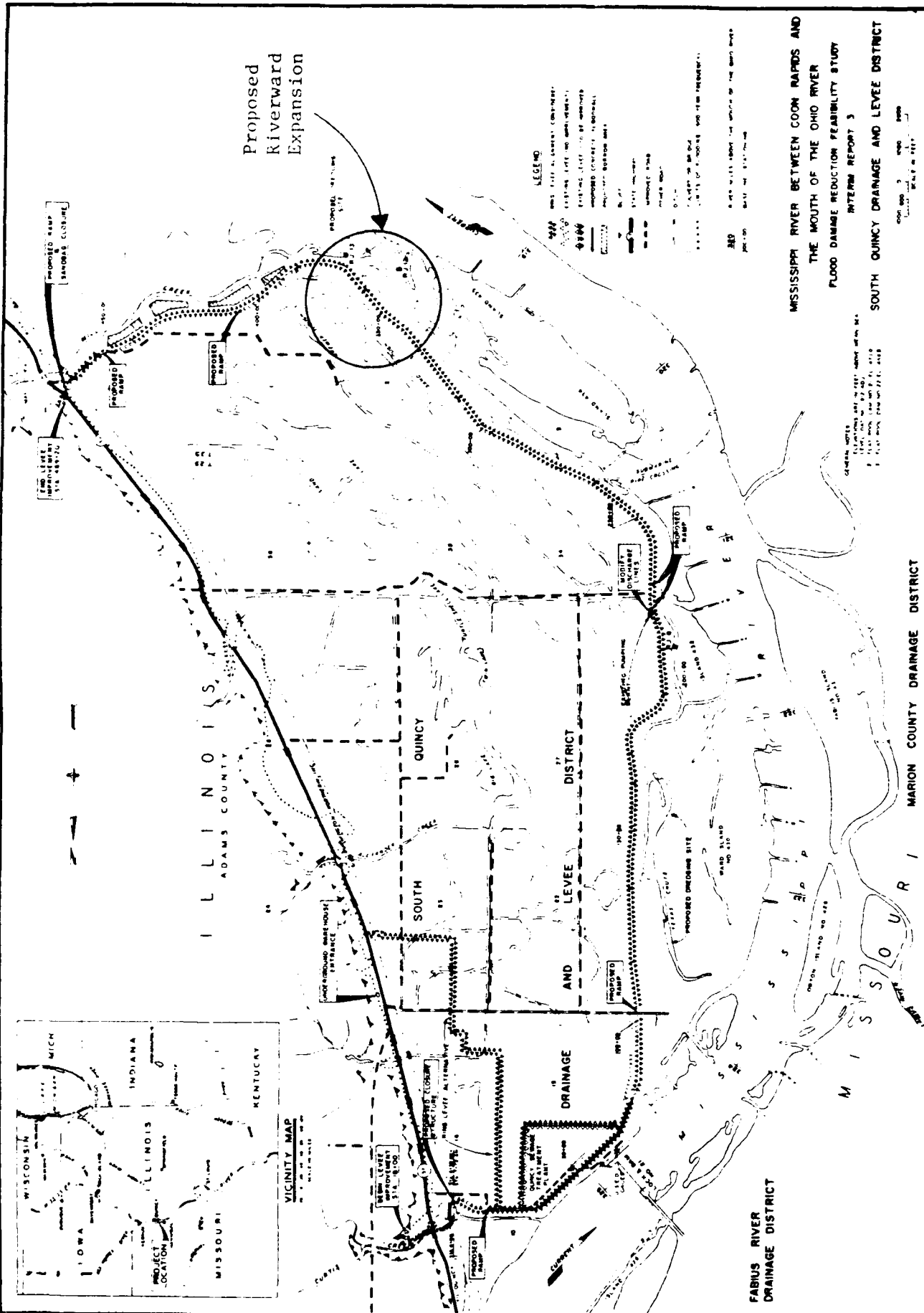
discharges into a forested slough using dredged sand from Mississippi River channel border and side channel areas as borrow are considered to be in compliance with Section 404(b)(1) of the Clean Water Act, as amended.

The implementation of these actions would not permanently and significantly impact water quality or the integrity of the aquatic ecosystem.

9 JUN 88

Date


Neil A. Smart
Colonel, U.S. Army
District Engineer



MISSISSIPPI RIVER BETWEEN COON RAPIDS AND
THE MOUTH OF THE OHIO RIVER
FLOOD DAMAGE REDUCTION FEASIBILITY STUDY
INTERIM REPORT 3
SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT

Site Of Proposed Discharge

DISTRIBUTION LIST

DISTRIBUTION LIST FOR
ENVIRONMENTAL ASSESSMENT
FLOOD DAMAGE REDUCTION STUDY
DESIGN CHANGE TO EXPAND
LEVEE RIVERWARD AT TWO LOCATIONS
SOUTH QUINCY D&LD, ILLINOIS

DISTRIBUTION -- INTERNAL

NC
CCF

HONORABLE PAUL SIMON, UNITED STATES SENATE
WASHINGTON DC 20510

HONORABLE ALAN J. DIXON, UNITED STATES SENATE
WASHINGTON, DC 20510

HONORABLE ALAN J. DIXON, UNITED STATES SENATOR
PO BOX FEDERAL COURTHOUSE, RM 108, 6TH & MONROE STS.
SPRINGFIELD, IL 62701

HONORABLE PAUL SIMON, UNITED STATES SENATOR
3 WEST OLD CAPITAL PLAZA, SUITE 1
SPRINGFIELD IL 62701

HONORABLE RICHARD J. DURBIN, HOUSE OF REPRESENTATIVES
WASHINGTON DC 20515

HONORABLE RICHARD J. DURBIN, REPRESENTATIVE IN CONGRESS
335-337 ILLINOIS STATE BANK BLDG, 531 HAMPSHIRE
QUINCY IL 62301-2935-2935

REGIONAL DIRECTOR, MID-CONTINENT REG, BUREAU OF OUTDOOR RECREATION
US DEPT OF THE INTERIOR, DENVER FEDERAL CENTER, BLDG 41
DENVER, CO 80225

DOT COORDINATOR, US DEPT OF TRANSPORTATION
(3-WS/TP 11), 2100 SECOND STREET SW
WASHINGTON, DC 20543

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